

AN EXPERT SYSTEM FOR DYEING COTTON FABRICS WITH REACTIVE DYES

ABSTRACT OF THE DISCLOSURE

AN expert system for dyeing cotton fabrics with reactive dyes that integrates the dyeing expertise, practical experiences and data processing technologies and has the functions of query, analysis, recommendation, inference, record, education and training. The system is applicable for the dyeing mills dyeing various cotton fabrics and provides the quantified compatibility index of any reactive dye combination, recommends the optimal recipe combination based on the change of dyeing liquor ratio and design dyeing process online based on the structure specifications of fabrics and the parameters of dyeing machines.